



**THERAPEUTIC DELIVERY COMPOSITIONS  
AND METHODS OF USE THEREOF**

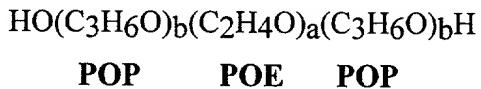
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**Abstract of the Invention**

The present invention relates to compositions and methods for treating infectious diseases and genetic disorders through gene therapy and intracellular delivery of antisense oligonucleotides or other nucleic acid sequences.

The present invention also includes compositions and methods using biologically active nonionic reverse block copolymers. The reverse copolymers have an inner core of polyoxyethylene (POE) that is flanked on either end by polyoxypropylene (POP). The reverse block copolymers have the following formula:



wherein "b" represents a number such that the molecular weight of the hydrophobe  $(\text{C}_3\text{H}_6\text{O})_b$  is between approximately 750 and 20,000, and "a" represents a number such that the percentage of hydrophile  $(\text{C}_2\text{H}_4\text{O})_a$  is between approximately 1% and 90%.

Our File: 19720-0626 (42896-262529)

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